

ATTACHMENT A

1. (Currently Amended): A fibre for spunbonded non-woven fabrics comprising a propylene polymer composition (A) having an MFR value (MFR (1)) from 6 to 150 g/10 min. and a tenacity value higher than 23 cN/tex, the propylene polymer composition (A) comprising:

ii) a crystalline propylene polymer composition having a melting temperature of 153° C or higher, a content of fraction soluble in xylene at room temperature lower than 10% by weight; ~~the said composition containing at least one of (1) at least 0.64 wt% of ethylene and (2) C₄-C₁₀ α olefin recurring unit and~~ the crystalline propylene polymer composition comprising (percent by weight):

I) 20-80%, of a crystalline propylene homopolymer ~~or crystalline propylene random copolymer containing at least one of (i) up to 1.5% by weight of ethylene and (ii) C₄-C₁₀ α olefin; and~~
II) 20-80% of a crystalline propylene random copolymer selected from:

IIa) a copolymer of propylene with 0.8 to 5% ~~[[10%]]~~ by weight of ethylene; provided that the difference in the ethylene content between polymer I) and polymer IIa) be at least 0.8 percentage unit with respect to the weight of the (co)polymer concerned;

~~IIb) a copolymer of propylene with 1.5 to 18% by weight of a C₄-C₁₀ α olefin and optionally ethylene; provided that the difference in the comonomer content between~~

~~polymer I) and polymer IIb) is at least 1.5 percentage units with respect to the weight of the (co)polymer concerned; and~~
~~IIc) a mixture of copolymer IIa) and copolymer IIb).~~

2. (Currently Amended): The fibre of claim 1 wherein composition (A) is polymer composition ii) having a melting temperature of 155° C or higher, a content of fraction soluble in xylene at room temperature lower than 5% by weight and a value of the ratio of the polymer fraction collected at the temperature range from 25° to 95° C by fractionation with xylene to the xylene soluble fraction at room temperature higher than 8; said composition ii) comprising (percent by weight):

I) 20-80% of a crystalline propylene homopolymer ~~or a crystalline propylene random copolymer containing at least one of (i) up to 1.5% by weight of ethylene and (ii) C₄-C₁₀- α olefin; and~~

II) 20-80% of a crystalline random copolymer selected from:

IIa) a copolymer of propylene with 0.8 to 5% by weight of ethylene; provided that the difference in the ethylene content between polymer I) and polymer IIa) be at least 0.8 percentage unit with respect to the weight of the (co)polymer concerned;

~~IIb) a copolymer of propylene with 1.5 to 12% by weight of a C₄-C₁₀- α olefin and optionally ethylene; provided that the difference in the comonomer content between polymer I) and polymer~~

~~IIb) is at least 1.5 percentage units with respect to the weight of the (co)polymer concerned; and~~

~~IIc) a mixture of copolymer IIa) and copolymer IIb).~~

3. (Previously Presented): The fibre of claim 1 wherein composition (A) is obtained by chemical degradation of a precursor polymer composition (B) having an MFR value (MFR (2)) of from 0.5 to 50 g/10 min, provided that the ratio of MFR (1) to MFR (2) is from 1.5 to 60.

4. (Previously Presented): The fibre of claim 1 wherein the difference in the ethylene content between polymer I) and polymer IIa) is at least 1 percentage unit with respect to the weight of the (co)polymer concerned.

5. (Withdrawn): A melt spin process for the production of a fibre for spunbonded non-woven fabrics comprising a propylene polymer composition (A) having MFR (1) values from 6 to 150 g/10 min., the propylene polymer composition (A) comprising

ii) a crystalline propylene polymer composition having a melting temperature of 153° C or higher, a content of fraction soluble in xylene at room temperature lower than 10% by weight; the said composition containing at least one of (1) at least 0.64 wt% of ethylene and (2) C₄-C₁₀ α -olefin recurring unit and comprising (percent by weight):

I) 20-80% of a crystalline propylene homopolymer or crystalline propylene random copolymer

containing at least one of (i) up to 1.5% by weight of ethylene and (ii) C₄-C₁₀ α -olefin; and
II) 20-80% of a crystalline propylene random copolymer selected from:

IIa) a copolymer of propylene with 0.8 to 10% by weight of ethylene; provided that the difference in the ethylene content between polymer I) and polymer IIa) is at least 0.8 percentage unit with respect to the weight of the (co)polymer concerned;

IIb) a copolymer of propylene with 1.5 to 18% by weight of a C₄-C₁₀ α -olefin and optionally ethylene; provided that the difference in the comonomer content between polymer I) and polymer IIb) is at least 1.5 percentage units with respect to the weight of the (co)polymer concerned; and

IIc) a mixture of copolymer IIa) and copolymer IIb).

6. (Withdrawn): A propylene polymer composition having MFR values (MFR (1)) from 6 to 150 g/10 min, the composition comprising (percent by weight):

I) 20-80% of a crystalline propylene homopolymer or crystalline propylene random copolymer containing at least one of (i) up to 1.5% by weight of ethylene and (ii) C₄-C₁₀ α -olefin and having a melting temperature of 155° C or higher, a content of fraction soluble in xylene at room temperature lower than 4% by weight and a value of the ratio of the polymer fraction collected at the temperature range

from 25° to 95° C by TREF with xylene to the xylene soluble fraction at room temperature higher than 8; and

II) 20-80% of a crystalline propylene random copolymer selected from:

IIa) a copolymer of propylene with 0.8 to 10% by weight of ethylene; provided that the difference in the ethylene content between polymer I) and polymer IIa) is at least 0.8 percentage unit with respect to the weight of the (co)polymer concerned;

IIb) a copolymer of propylene with 1.5 to 18% by weight of a C₄-C₁₀ α -olefin and optionally ethylene; provided that the difference in the comonomer content between polymer I) and polymer IIb) is at least 1.5 percentage units with respect to the weight of the (co)polymer concerned; and

IIc) a mixture of copolymer IIa) and copolymer IIb);

said polymer composition being obtained by way of chemical degradation of a precursor polymer composition (B) having MFR (2) values of from 0.5 to 50 g/10 min, provided that the ratio of MFR (1) to MFR (2) is from 1.5 to 60.

7. (Withdrawn): A crystalline propylene random copolymer or a crystalline propylene polymer composition selected from:

a) a copolymer or polymer composition containing at least 0.8% by weight of ethylene and optionally at least one of C₄-C₁₀ α -olefins and having a melting

temperature of 155° C or higher, a content of fraction soluble in xylene at room temperature lower than 4% by weight and a value of the ratio of the polymer fraction collected at the temperature range from 25° to 95° C by TREF with xylene to the xylene soluble fraction at room temperature higher than 8; and

- b) a copolymer or polymer composition containing more than 2.5 to 4.5 wt% by weight of ethylene and optionally at least one of C₄-C₁₀ α -olefins and having a melting temperature of 153° C or higher, and a ratio of a fraction collected at the temperature range from 25° to 95° C by TREF with xylene to the xylene soluble fraction at room temperature higher than 4;

said copolymer or composition having a MFR value (MFR (1)) and being obtained by way of chemical degradation of a precursor polymer composition (B) having MFR (2) values of from 0.5 to 50 g/10 min, provided that the ratio of MFR (1) to MFR (2) is from 1.5 to 60.

8. (Withdrawn): A process for the preparation of a propylene polymer composition having MFR values (MFR (1)) from 6 to 150 g/10 min, the composition comprising (percent by weight):

- I) 20-80% of a crystalline propylene homopolymer or crystalline propylene random copolymer containing at least one of (i) up to 1.5% by weight of ethylene and (ii) C₄-C₁₀ α -olefin and having a melting temperature of 155° C or higher, a content of fraction soluble in xylene at room temperature lower than 4% by weight and a value of the ratio of the

polymer fraction collected at the temperature range from 25° to 95° C by TREF with xylene to the xylene soluble fraction at room temperature higher than 8; and

II) 20-80% of a crystalline propylene random copolymer selected from:

IIa) a copolymer of propylene with 0.8 to 10% by weight of ethylene; provided that the difference in the ethylene content between polymer I) and polymer IIa) is at least 0.8 percentage unit with respect to the weight of the (co)polymer concerned;

IIb) a copolymer of propylene with 1.5 to 18% by weight of a C₄-C₁₀ α -olefin and optionally ethylene; provided that the difference in the comonomer content between polymer I) and polymer IIb) be at least 1.5 percentage units with respect to the weight of the (co)polymer concerned; and

IIc) a mixture of copolymer IIa) and copolymer IIb);

said polymer composition being obtained by way of chemical degradation of a precursor polymer composition (B) having MFR (2) values of from 0.5 to 50 g/10 min, provided that the ratio of MFR (1) to MFR (2) is from 1.5 to 60;

the process comprising the following stages:

1) preparing the precursor polymer composition (B) by polymerising the monomers in one or more sequential stages, operating in each stage in the presence of the polymer formed and the catalyst used in the

preceding stage, and dosing a molecular weight regulator in such amounts as to obtain the MFR (2) value for the precursor polymer composition (B) of from 0.5 to 50 g/10 min; and

- 2) subjecting the precursor composition (B) obtained in stage (1) to a degradation treatment with a degradation ratio, in terms of ratio of MFR (1) to MFR (2), from 1.5 to 60.

9. (Currently Amended): A spunbonded non-woven fabric comprising fibres comprising a propylene polymer composition (A) having an MFR value (MFR (1)) from 6 to 150 g/10 min. and a tenacity value higher than 23 cN/tex, the propylene polymer composition (A) comprising:

- ii) a crystalline propylene polymer composition having a melting temperature of 153° C or higher, a content of fraction soluble in xylene at room temperature lower than 10% by weight; ~~the said composition containing at least one of (1) at least 0.64 wt% of ethylene and (2) C₄-C₁₀ α olefin recurring unit and~~ the crystalline propylene polymer composition comprising (percent by weight):

- I) 20-80%, of a crystalline propylene homopolymer ~~or crystalline propylene random copolymer containing at least one of (i) up to 1.5% by weight of ethylene and (ii) C₄-C₁₀ α olefin;~~ and
- II) 20-80% of a crystalline propylene random copolymer selected from:

- IIa) a copolymer of propylene with 0.8 to ~~[[10%]]~~ 5% by weight of ethylene; provided that the difference in the ethylene content

between polymer I) and polymer IIa) be at least 0.8 percentage unit with respect to the weight of the (co)polymer concerned;

~~IIb) a copolymer of propylene with 1.5 to 18% by weight of a C₄-C₁₀ α -olefin and optionally ethylene; provided that the difference in the comonomer content between polymer I) and polymer IIb) be at least 1.5 percentage units with respect to the weight of the (co)polymer concerned; and~~

~~IIc) a mixture of copolymer IIa) and copolymer IIb).~~

10. (Withdrawn): A process for the preparation of a crystalline propylene random copolymer or a crystalline propylene polymer composition having a MFR value (MFR (1)) selected from:

- a) a copolymer or polymer composition containing at least 0.8% by weight of ethylene and optionally at least one of C₄-C₁₀ α -olefins and having a melting temperature of 155° C or higher, a content of fraction soluble in xylene at room temperature lower than 4% by weight and a value of the ratio of the polymer fraction collected at the temperature range from 25° to 95° C by TREF with xylene to the xylene soluble fraction at room temperature higher than 8; and
- b) a copolymer or polymer composition containing more than 2.5 to 4.5 wt% by weight of ethylene and optionally at least one of C₄-C₁₀ α -olefins and having a melting temperature of 153° C or higher,

and a ratio of a fraction collected at the temperature range from 25° to 95° C by TREF with xylene to the xylene soluble fraction at room temperature higher than 4;

said copolymer or composition being obtained by way of chemical degradation of a precursor polymer composition (B) having MFR (2) values of from 0.5 to 50 g/10 min, provided that the ratio of MFR (1) to MFR (2) is from 1.5 to 60;

the process comprising the following stages:

- 1) preparing the precursor polymer composition (B) by polymerising the monomers in one or more sequential stages, operating in each stage in the presence of the polymer formed and the catalyst used in the preceding stage, and dosing a molecular weight regulator in such amounts as to obtain an MFR (2) value for the precursor polymer composition (B) of from 0.5 to 50 g/10 min; and
- 2) subjecting the precursor composition (B) obtained in stage (1) to a degradation treatment with a degradation ratio, in terms of ratio of MFR (1) to MFR (2), from 1.5 to 60.